

Products and Services Purpose Statement (from bylaws)

1. To encourage the **development, use and improvement of best science practices** to ensure the quality, usability, and breadth of data and resultant information, products, and services;
2. To provide a Federation-wide forum for defining, developing and evaluating requirements for **Federation Earth science products**; and
3. To provide a Federation-wide forum for defining, developing and evaluating requirements **for product services and user services.**

P&S Testbed

The purpose of the Products and Services Testbed is to provide an environment where innovations in prototype standards, services, protocols, and best practices can be explored and evaluated. The Testbed serves as a forum for innovative collaboration across all sectors of the Federation to improve availability and access to our member products and services for mutual benefit.

<http://wiki.esipfed.org/index.php/Testbed>

P&S Testbed: Expert Skills Database

The Federation collectively includes an exceptionally wide range of expertise among its participating members. These expert skills of Federation members will be categorized in a knowledge base and offered as a service. We use the master ESIP email list of over 700 names and Drupal tools to enable any member to associate their name to a skill and associated expertise level. Currently, the skill list consists of 60 information technology (IT) skills, but members can add additional categories. A GUI enables users to search this skill list by multiple criteria. **<http://www.esipfed.org/expert>**

Ultimate Benefit: Promotion of expert skills available within the Federation.

Status from Yuechen: Currently working on sign up with esipfed.org using ESIP people database. Plan to add service exchange band to provide a formal mechanics for users to exchange service by earning/spending points by providing/obtaining services

P&S Testbed: Unique Data Identifiers

The Preservation and Stewardship Cluster and the NASA Technology Infusion Working Group have been considering permanent naming schemes for data products http://wiki.esipfed.org/index.php/Preservation_and_Stewardship. These identifiers can serve as references in journal articles and must include versioning representations. Many naming options have been promoted, but the best choices for Earth science data require careful examination. Two datasets may differ only in format, byte order, data type, access method, etc., creating facets (dimensions) not relevant to classification schemes for books (Library of Congress, Dewey Decimal). This testbed registers several Federation datasets to multiple naming conventions to evaluate the practical differences between them.

Ultimate Benefit: Permanent, unique names for data Federation data products.

Status from Yuechen:

- Created DOI for NSIDC Glacier Photo Collection
- Originally want to use crossref <http://www.crossref.org>
- Recently changed to use EZID <http://n2t.net/ezid>
- Currently developing program to load Glacier Photo Collection DOI into EZID

P&S Testbed: Semantic Registration of Data and Services

The Semantic Web Cluster has been developing ontologies for Data Service, Data types, and science concepts http://wiki.esipfed.org/index.php/Data_Service_Ontologies. The testbed enables providers to register their products and services semantically, which will provide more precise descriptions of their offerings.

Ultimate Benefit: Better classification and discovery of specialized Federation products and services

Status: ?

P&S Testbed: Application-Specific Portals

The Air Quality Working Group has been developing an inventory of air quality data and data services. Other GEOSS Societal Benefit Areas could benefit from a similar capability to highlight offerings from Federation members. For this task, the Air Quality portal has been cloned for use by other application areas. Initially, a Water portal has been developed.

Ultimate Benefit: Better marketing of targeted Federation products and services.

Status: ?

P&S Testbed: Recent Proposal

- Web space to advertise ESIP services
- Approach to assigning "quality" metrics to ESIP data products
- Approach for metadata describing virtual products and services
- Service Exchange Bank
- Service for data set equivalence - determine if two datasets are different

Other Possible Next Steps

- Survey other cluster/groups/committees for ideas
- Set up CVS/SVN repository for testbed reference implementations
- Consider how/why technologies should migrate to a production environment within ESIP